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EXAMINER

STARKS, WILBERT L

ART UNIT	PAPER NUMBER
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2129

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/714,124	<b>Applicant(s)</b> TOVINKERE ET AL.	
	<b>Examiner</b> Wilbert L. Starks, Jr.	<b>Art Unit</b> 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-17 and 30-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-17 and 30-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 U.S.C. §101***

1. 35 U.S.C. §101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 15-17 and 30-56 is directed to non-statutory subject matter.

2. Regardless of whether any of the claims are in the technological arts, none of them is limited to practical applications in the technological arts. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 U.S.C. §101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specifically, the Federal Circuit held that the act of:

...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicant's "raw data" and "semantic temporal events" references are just such abstract ideas.

3. Examiner bases his position upon guidance provided by the Federal Circuit in *In re Warmerdam*, as interpreted by *AT&T v. Excel*. This set of precedents is within the same line of cases as the *Alappat-State Street Bank* decisions and is in complete agreement with those decisions. *Warmerdam* is consistent with *State Street*'s holding that:

Today we hold that *the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price*, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result' -- *a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.* (emphasis added) *State Street Bank* at 1601.

4. True enough, that case later eliminated the "business method exception" in order to show that business methods were not per se nonstatutory, but the court clearly *did not* go so far as to make business methods *per se* statutory. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that "business methods were per se statutory" than it was to define the practical application in the case as "...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price..."

5. The court was being very specific.

6. Additionally, the court was also careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording

purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.” (i.e. the trading activity is the further practical use of the real world monetary data beyond the transformation in the computer – i.e., “post-processing activity”).)

7. Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

8. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating ‘abstract ideas’ or ‘natural phenomena’ ... As the Supreme Court has made clear, ‘[a]n idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation. In re Warmerdam 31 USPQ2d at 1759 (emphasis added).

9. Since the Federal Circuit held in *Warmerdam* that this is the “dispositive issue” when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is “useful, concrete, and tangible” in similar cases. Accordingly, the Examiner finds that Applicant manipulated a set of abstract “raw data” and “semantic temporal events” to solve purely algorithmic problems in the abstract (i.e., what *kinds* of “raw data” and “semantic temporal events” are used? Heart rhythm data? Algebraic equations? Boolean logic problems? Fuzzy logic algorithms? Probabilistic word problems? Philosophical ideas? Even vague expressions, about which even reasonable persons could differ as to their meaning? Combinations thereof?) Clearly, a claim for manipulation of “raw data” and “semantic temporal events” is provably even more abstract (and thereby less limited in practical application) than pure “mathematical algorithms” which the Supreme Court has held are per se nonstatutory – in fact, it *includes* the expression of nonstatutory mathematical algorithms.
10. Since the claims are not limited to exclude such abstractions, the broadest reasonable interpretation of the claim limitations includes such abstractions. Therefore, the claims are impermissibly abstract under 35 U.S.C. §101 doctrine.

11. Since *Warmerdam* is within the *Alappat-State Street Bank* line of cases, it takes the same view of “useful, concrete, and tangible” the Federal Circuit applied in *State Street Bank*. Therefore, under *State Street Bank*, this could not be a “useful, concrete and tangible result”. There is only manipulation of abstract ideas.

12. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T Corp. v. Excel Communications, Inc.* decision. The Court reminded us that:

Finally, the decision in *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) is not to the contrary. \*\*\* The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that ‘taking several abstract ideas and manipulating them together adds nothing to the basic equation’; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court’s conclusion on the facts, the holding of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

13. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the “useful, concrete, and tangible” nature of a set of claims under 101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.

14. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicant’s phrases “raw data” and “semantic temporal events” are simply abstract constructs that do not provide limitations in the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T*, *State Street*

and *Warmerdam*, is straightforward and clear. The claims take several abstract ideas (i.e., "raw data" and "semantic temporal events" in the abstract) and manipulate them together adding nothing to the basic equation. Claims 15-17 and 30-56 are, thereby, rejected under 35 U.S.C. §101.

### ***Claim Rejections - 35 U.S.C. §112***

The following is a quotation of the first paragraph of 35 U.S.C. §112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15-17 and 30-56 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application. This is how the MPEP puts it:

("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35 U.S.C. §101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. §101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112."; In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**") See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).



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Therefore, claims 15-17 and 30-56 are rejected on this basis.

### ***Response to Arguments***

Applicant's arguments filed 11/09/2005 have been fully considered but they are not persuasive. Specifically:

#### **Argument 1**

In the July 7 Office Action, the Examiner indicated that the claimed subject matter must disclose a practical application which produces a "useful, concrete and tangible result." (July 7 Office Action, pages 2 and 3) Applicants have amended claim 15 to specify such a practical application. Specifically, claim 15, as amended calls for "A system for indexing raw data from at least one data source based on a semantic temporal event included in the raw data." The system of claim 15, as amended produces a "useful, concrete and tangible result" in the form of an index for said raw data based on detected semantic temporal events which improves the efficiency with which a user may retrieve of a particular segment of raw data.

Applicant amends his claims so that there are two things to analyze as to whether they import statutory matter to the claims. Specifically, those two things are:

- A) "raw data", and
- B) "semantic temporal events".

Regarding "raw data" clearly, this term does not limit the claims to any particular practical application...in fact, almost every possible practical application deals with "raw data" of some sort. Applicant is to limit his claims to specific practical applications within

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the useful arts. Applicant has not done so with the term "raw data," so Applicant has not shifted his burden and, therefore, the rejections stand.

Regarding "semantic temporal events," Applicant must specify the type of event in order to define a practical application in the useful arts. Applicant has not done so, therefore, Applicant has not shifted his burden and, therefore, the rejections stand.

### **Argument 2**

The Examiner also found that "the claims are impermissibly abstract under 35 U.S.C. §101 doctrine." In doing so, the Examiner states that "Applicant manipulated a set of abstract "semantic temporal events" to solve purely algorithmic problems in the abstract." Applicants respectfully submit that the term "semantic temporal events" is not merely an abstract idea. Rather, Applicants rely on the fundamental principle contained in 35 U.S.C. §112, second paragraph, that "Applicants are their own lexicographers." (See MPEP §112) As provided in MPEP §2173.01, Applicants "can define in the claims what they regard as their invention essentially in whatever terms they choose so long as any special meaning assigned to a term is clearly set forth in the specification." Applicants note that the disclosure describes a "semantic event" as content embedded in media data, for example, a goal event in a soccer game. (See Specification, pages 2-3) Applicants respectfully submit that one skilled in the art at the time of the invention would therefore, understand that a "semantic temporal event" is a semantic event with a time component such as a sports event (i.e. a soccer game (see claims 30-31 and 44-45)). Accordingly, Applicants respectfully submit that independent claim 15, as amended is directed to statutory subject matter and the application is sufficient to enable one of ordinary skill in the art to practice the invention. ' Thus, Applicants respectfully request that the rejections be withdrawn.

Applicant seems to be asserting that the notion of time is sufficient to show a practical application. Examiner disagrees based on the physical definitions of "time."

The modern understanding of "time" by physicists has two different kinds of time:

A) "Mathematical time," and

B) "Physical time."

Mathematical time is merely a mathematical construct that can be negative in value, run backwards in time and need not refer to any actual occurrences in the real world.

Physical time, on the other hand is not something in which other things operate...it is defined as the change of a physical system...such as a clock. To describe physical time, one must describe the thing that is changing. Otherwise, without such a definition, one is simply discussing mathematical time.

Applicant has limited nothing in the claims to make his "temporal" references actual references to things in physical time. Consequently, Applicant's references are not drawn to "physical time" but to "mathematical time" where such fine limitations are irrelevant. As such, Applicant's claims remain "abstract ideas" and are not suitable for patent. Applicant has not shifted his burden and, therefore, the rejections stand.

**Argument 3**

Independent claim 43, as amended recites limitations similar to those of independent claim 15, as amended. Accordingly Applicants respectfully submit that claim 43 is directed to statutory subject matter for reasons similar to those set forth above with respect to claim 15, as amended.

The reasons set forth with respect to claim 15 (Argument 1, above) is unpersuasive. This argument depends entirely on the logic of that previous argument. Accordingly, this argument by Applicant is, likewise, unpersuasive. Applicant has not shifted his burden and, therefore, the rejections stand.

#### **Argument 4**

Claims 16-17 and 30-42 depend from claim 15, as amended. Claims 44-56 depend from claim 43, as amended. Accordingly, Applicants respectfully submit that claims 16-17, 30-42, and 44-56 are directed to statutory subject matter for the same reasons set forth above with respect to claims 15 and 43, respectively.

The reasons set forth with respect to claim 15 (Argument 1, above) and claim 43 are unpersuasive. This argument depends entirely on the logic of those previous arguments. Accordingly, this argument by Applicant is, likewise, unpersuasive. Applicant has not shifted his burden and, therefore, the rejections stand.

#### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

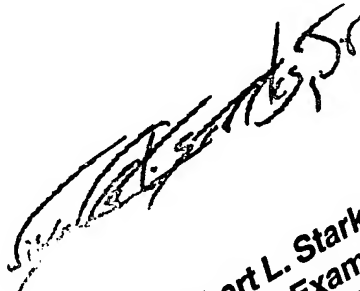
Alternatively, inquiries may be directed to the following:

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WLS

30 January 2005



**Wilbert L. Starks, Jr.**  
**Primary Examiner**  
**Art Unit - 2121**